(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 11 November 2004 (11.11.2004)

PCT

(10) International Publication Number WO 2004/096793 A1

(51) International Patent Classification7: C07D 403/04, 403/10, 401/04, 403/12, 495/04, 401/12

(21) International Application Number:

PCT/HU2004/000043

27 April 2004 (27.04.2004) (22) International Filing Date:

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: P0301154

28 April 2003 (28.04.2003) HU

(71) Applicants and

- (72) Inventors: HIDEG, Kálmán [HU/HU]; Ifjuság utja 5/a, H-7624 Pécs (HU). KÁLAI, Tamás [HU/HU]; Kossuth F.u.46., H-2700 Cegléd (HU). SÜMEGI, Balázs [HU/HU]; Homokko u.7., H-7634 Pécs (HU).
- (74) Agent: SOMFAI, Éva; Somfai & Partners, Industrial

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, 7W.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

(HU).

(B1) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(S4) Title: NEW ALICYCLIC-AMINE-SUBSTITUTED 4-CARBOXAMIDO-BENZIMIDAZOLES AS PARP-INHIBITORS AND ANTIOXIDANTS

(54) Title: NEW ALICYCLIC-AMINE-SUBSTITUTED 4-CARBOXAMIDO-BENZIMIDAZOLES AS PARP-INHIBITORS AND ANTIOXIDANTS

(57) Abstract: Compounds of the formula (1) and their pharmaceutically acceptable or technically applicable acid salts - where in the formula R¹ represents hydrogen, C₍₁₋₀₎ alkoy, C₍₁₋₀₎ alkoy, carboxyl, C₍₁₋₀₎ alkoy, carboxyl, carboxamido-aryl or hetero-aryl R² represents hydrogen, C₍₁₋₀₎ alkyl, aryl-methylene, or aryl, Y is a valency bond, a straight or by an arylene group, n represents zero or the integer 1 m represents the integer 1, 2 or 3 O represents the i oxygen radical (0) or together with the N atom of the adjacent ring forms a +N=O (oxoimmonium) group Z represents a single or double bond and their pharmaceutically acceptable or technically useful salts, processes for their preparation and their biological use as PARP inhibitors and antioxidants.





WO 2004/096793 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.